	Type	L #	Hits	Search Text	DBs
1	BRS	L1	939	GLADYSZ.in. or WENDE.in. or CURRAN.in.	USPAT
2	BRS	L2	10	l1 and fluorous.clm.	USPAT

	Time Stamp	Comments	Error Definition	Errors
1	2005/05/24 15:27			
2	2005/05/24 15:27			

	Type	L #	Hits	Search Text	DBs
1	BRS	L1	42	"0106676"	DERWENT
2	BRS	L2	0	l1 and "catalyst system"	DERWENT
3	BRS	L3	3	"200106676"	DERWENT
4	BRS	L4	1	"20030148878"	DERWENT
5	BRS	L5	8	"nonfluorous phase" or "non-fluorous phase" or "nonfluorous medium" or "non-fluorous medium"	USPAT
6	BRS	L6	18	"nonfluorous phase" or "non-fluorous phase" or "nonfluorous medium" or "non-fluorous medium"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT
7	BRS	L7	2	l6 and adsorb$	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT
8	BRS	L9	1	l6 and (temperature with decreas$)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT

	Time Stamp	Comments	Error Definition	Errors
1	2005/05/24 14:48			
2	2005/05/24 14:48			
3	2005/05/24 14:49			
4	2005/05/24 14:49			
5	2005/05/24 14:55			
6	2005/05/24 14:55			
7	2005/05/24 14:56			
8	2005/05/24 14:57			

	Type	L #	Hits	Search Text	DBs
9	BRS	L8	13	16 and temperature	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT

	Time Stamp	Comments	Error Definition	Errors
9	2005/05/24 14:58			

DERWENT-ACC-NO: 2002-351364

DERWENT-WEEK: 200479

TITLE: Catalyst system for fluorous biphasic catalysis, comprises functionalized plastic beads or mono-dispersed silicon dioxide or its flakes associated with catalyst

INVENTOR: HOPE, E G; PELLATT, M G ; SHERRINGTON, J ; VAUGHAN, J F S

PATENT-ASSIGNEE: MERCK PATENT GMBH[MERE] , HOPE E G[HOPEI], PELLATT M G[PELLI], SHERRINGTON J[SHERI], VAUGHAN J F S[VAUGI]

PRIORITY-DATA: 2000EP-0114150 (July 12, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6815390 B2	November 9, 2004	N/A	000	B01J 031/00
WO 200204120 A2	January 17, 2002	E	020	B01J 035/00
AU 200185740 A	January 21, 2002	N/A	000	B01J 035/00
EP 1307287 A2	May 7, 2003	E	000	B01J 031/02
US 20030148878 A1	August 7, 2003	N/A	000	B01J 031/00
JP 2004502528 W	January 29, 2004	N/A	036	B01J 031/26

DESIGNATED-STATES: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ
DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL
TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW AT BE CH CY DE DK EA ES FI FR GB GH GM
GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW AL AT BE CH CY DE
DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
US 6815390B2	N/A	2001WO-EP06676
June 13, 2001		
US 6815390B2	N/A	2003US-0332469
January 9, 2003		
US 6815390B2	Based on	WO 200204120
N/A		
WO 200204120A2	N/A	2001WO-EP06676
June 13, 2001		
AU 200185740A	N/A	2001AU-0085740
June 13, 2001		
AU 200185740A	Based on	WO 200204120
N/A		
EP 1307287A2	N/A	2001EP-0964975
June 13, 2001		
EP 1307287A2	N/A	2001WO-EP06676
June 13, 2001		
EP 1307287A2	Based on	WO 200204120
N/A		
US20030148878A1	N/A	2001WO-EP06676
June 13, 2001		
US20030148878A1	N/A	2003US-0332469
January 9, 2003		
JP2004502528W	N/A	2001WO-EP06676
June 13, 2001		
JP2004502528W	N/A	2002JP-0508568
June 13, 2001		
JP2004502528W	Based on	WO 200204120
N/A		

INT-CL (IPC): B01J021/08, B01J027/06 , B01J031/00 , B01J031/02 , B01J031/16 , B01J031/26 , B01J035/00 , C07C045/50

ABSTRACTED-PUB-NO: WO 200204120A

BASIC-ABSTRACT:

NOVELTY - A catalyst system comprises functionalized plastic beads or mono-dispersed silicon dioxide (SiO2) or SiO2 flakes with a catalyst in a
fluorous phase.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the use of
functionalized mono-dispersed SiO2 or SiO2 flakes as catalyst support agent.

USE - For fluorous biphasic catalysis (FBC), catalytic hydroformylation, hydroboration, C-C coupling, epoxidation, oxidation, reduction, and alkylation (claimed).

ADVANTAGE - The functionalization of the beads or SiO2 particles facilitates the interaction with the perfluoro groups of the catalyst. The catalysis is performed in a thin film of liquid adhering to the surface of the beads or SiO2 particles. Thus, a reduced volume of the fluorinated solvent, which is expensive and environmentally unsafe, is required while facilitating a continuous process and maintaining the advantages of FBC approach. The amount of catalyst leaching in the non-fluorous phase is highly reduced due to the enhanced interaction between the support material and the catalyst. The catalyst can be fully recovered easily and efficiently, thus reducing process cost.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: CATALYST SYSTEM BIPHASIC CATALYST COMPRISE FUNCTION PLASTIC BEAD
MONO DISPERSE SILICON FLAKE ASSOCIATE CATALYST

DERWENT-CLASS: A97 E12 J04

CPI-CODES: A12-W11K; E05-G02; E05-G03B; E05-M; E05-N; E10-H04A2; E31-P03;
J04-E03; J04-E04; N01-D02; N05-B; N05-E03; N07;

CHEMICAL-CODES:
Chemical Indexing M3 *01*
Fragmentation Code
A677 A940 A970 B515 B720 B743 B813 B831 C017 C100
C108 C710 C720 C801 C803 C804 C805 C806 C807 G013
G019 G100 H601 H609 H684 H685 H689 M121 M129 M144
M280 M315 M320 M323 M332 M344 M353 M393 M411 M510
M520 M530 M533 M540 M620 M630 M730 M782 M904 M905
Q421 R032 R033 R038
Specfic Compounds
A6HUMK A6HUMC A6HUMQ A6HUMM

Chemical Indexing M3 *02*
Fragmentation Code
A677 A940 A970 B515 B720 B743 B813 B831 C017 C100
C108 C710 C720 C801 C803 C804 C805 C806 C807 G012
G019 G100 H601 H609 H684 H685 H689 M121 M129 M144
M280 M315 M320 M323 M332 M344 M353 M393 M411 M510
M520 M530 M533 M540 M620 M630 M730 M782 M904 M905
Q421 R032 R033 R038
Specfic Compounds
A6HUJK A6HUJC A6HUJQ A6HUJM

Chemical Indexing M3 *03*
Fragmentation Code
A677 A940 A970 B515 B720 B743 B813 B831 C017 C100
C108 C710 C720 C801 C803 C804 C805 C806 C807 G011
G019 G100 H601 H609 H684 H685 H689 M121 M129 M144
M280 M315 M320 M323 M332 M344 M353 M393 M411 M510
M520 M530 M533 M540 M620 M630 M730 M782 M904 M905
Q421 R032 R033 R038
Specfic Compounds
A6HUHK A6HUHC A6HUHQ A6HUHM

Chemical Indexing M3 *04*
Fragmentation Code
G037 G038 G039 G563 H6 H601 H609 H663 M210 M211
M240 M282 M320 M415 M510 M520 M530 M541 M730 M782
M904 M905 Q421 R032 R033 R038
Specfic Compounds
A6HW0K A6HW0C A6HW0Q A6HW0M

Chemical Indexing M3 *05*
Fragmentation Code
B114 B702 B720 B831 C108 C800 C802 C803 C804 C805
C807 M411 M730 M782 M904 M905 Q421 R032 R033 R038
Specfic Compounds
01694K 01694C 01694Q 01694M
Registry Numbers
1694S 1694U

Chemical Indexing M3 *06*
Fragmentation Code
A545 A940 A970 B515 B720 B744 B813 B832 C017 C100
C710 C720 C801 C803 C804 C805 C806 C807 G013 G019
G100 H6 H601 H608 H609 H681 H682 H683 H684 H685
H689 M1 M121 M129 M144 M149 M280 M311 M312 M313
M314 M315 M316 M321 M322 M323 M331 M332 M333 M340
M342 M344 M353 M361 M391 M393 M411 M510 M520 M533
M540 M630 M730 M782 M904 M905 Q421 R032 R033 R038
Markush Compounds

200058-31805-K 200058-31805-C 200058-31805-Q 200058-31805-M

Chemical Indexing M3 *07*

Fragmentation Code

A546 A970 B515 B720 B744 B813 B832 C710 G013 G019
G100 H6 H601 H608 H609 H681 H682 H683 H684 H685
H689 M1 M121 M129 M144 M149 M280 M311 M312 M313
M314 M315 M316 M321 M322 M323 M331 M332 M333 M340
M342 M344 M353 M361 M391 M393 M411 M510 M520 M533
M540 M630 M730 M782 M904 M905 Q421 R032 R033 R038

Markush Compounds

200058-31804-K 200058-31804-C 200058-31804-Q 200058-31804-M

Chemical Indexing M3 *08*

Fragmentation Code

A545 A940 A970 B415 B515 B720 B743 B813 B831 C017
C100 C101 C550 C710 C720 C801 C803 C804 C805 C806
C807 G001 G002 G011 G012 G013 G019 G020 G021 G022
G029 G040 G100 G111 G112 G221 G299 H6 H601 H607
H608 H609 H681 H682 H683 H684 H685 H689 M121 M122
M124 M129 M144 M280 M311 M312 M313 M314 M315 M316
M321 M322 M323 M331 M332 M333 M340 M344 M353 M361
M391 M392 M393 M411 M510 M520 M530 M531 M532 M533
M540 M620 M630 M730 M782 M904 M905 Q421 R032 R033
R038

Markush Compounds

200058-31803-K 200058-31803-C 200058-31803-Q 200058-31803-M

Chemical Indexing M3 *09*

Fragmentation Code

A545 A940 A970 B415 B515 B720 B743 B813 B831 C017
C100 C106 C710 C720 C801 C803 C804 C805 C806 C807
G001 G002 G011 G012 G013 G019 G020 G021 G022 G029
G040 G100 G111 G112 G221 G299 H601 H607 H608 H609
H681 H682 H683 H684 H685 H689 L750 M121 M122 M124
M129 M144 M280 M311 M312 M313 M314 M315 M316 M321
M322 M323 M331 M332 M333 M340 M344 M353 M361 M391
M392 M393 M411 M510 M520 M530 M531 M532 M533 M540
M620 M630 M730 M782 M904 M905 Q421 R032 R033 R038

Markush Compounds

200058-31802-K 200058-31802-C 200058-31802-Q 200058-31802-M

Chemical Indexing M3 *10*

Fragmentation Code

A545 A970 B415 B515 B720 B743 B813 B831 C101 C106
C550 C710 C720 C801 C802 C805 C807 G001 G002 G011
G012 G013 G019 G020 G021 G022 G029 G040 G100 G111
G112 G221 G299 H601 H607 H608 H609 H681 H682 H683
H684 H685 H689 L750 M121 M122 M124 M129 M144 M280
M311 M312 M313 M314 M315 M316 M321 M322 M323 M331

M332 M333 M340 M344 M353 M361 M391 M392 M393 M411
M510 M520 M530 M531 M532 M533 M540 M620 M630 M730
M782 M904 M905 Q421 R032 R033 R038
Markush Compounds
200058-31801-K 200058-31801-C 200058-31801-Q 200058-31801-M

Chemical Indexing M3 *11*
Fragmentation Code
G010 G100 H7 H715 H721 M210 M212 M240 M281 M320
M423 M510 M520 M531 M540 M782 M904 M905 R032 R033
R038
Specfic Compounds
A00CAK A00CAM

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1694S; 1694U

ENHANCED-POLYMER-INDEXING:
Polymer Index [1.1]
018 ; R00708 G0102 G0022 D01 D02 D12 D10 D19 D18 D31 D51 D53 D58
D76 D88 ; H0000 ; M9999 M2391 ; S9999 S1467 S1456 ; P1741 ;
P1752
Polymer Index [1.2]
018 ; M9999 M2391 ; H0260 ; S9999 S1467 S1456 ; H0077 H0044 H0011
; P8004 P0975 P0964 D01 D10 D11 D50 D82 F34 ; P0635*R F70 D01
Polymer Index [1.3]
018 ; ND01 ; Q9999 Q6917 ; B9999 B5209 B5185 B4740

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C2002-099703